

I Claim:

1. A low charge retaining film material for packaging that protects items from electrostatic discharge and from moisture caused corrosion said material comprising:
- a heat sealable static dissipative polymer;
 - a first moisture barrier attached to the heat sealable static dissipative polymer;
 - a second moisture barrier attached to the first moisture barrier; and
 - a low charge retaining coating attached to the second moisture barrier.
2. A low charge retaining film material for packaging that protects items from electrostatic discharge and from moisture caused corrosion, said material comprising:
- a heat sealable static dissipative polymer;
 - a first polymeric moisture barrier with a first metallized surface and a second nonmetallized surface, said first polymeric moisture barrier being attached to said heat sealable static dissipative polymer by a first tie layer;
 - a second polymeric moisture barrier with a first metallized surface and a second nonmetallized surface, said second nonmetallized surface of said second polymeric moisture barrier being attached to said first polymeric moisture barrier by a second tie layer and;
 - a low charge retaining coating attached to said first metallized surface of said second metallized polymeric moisture barrier.
3. A material as in claim 2 wherein the tie layer is an adhesive.
4. A material as in claim 3 wherein the first metallized surface of the first polymeric moisture barrier is attached to the tie layer.

5. A material as in claim 2 wherein the metal of each of the metallized surfaces of the first and second polymeric moisture barrier is aluminum and the aluminum is at least 170 Angstroms thick.

6. A material as in claim 2 wherein the heat sealable static dissipative polymer has a conductivity of at least 10^{-10} Siemens.

7. A material as in claim 2 wherein the low charge retaining layer is a carbon-coated polymer with a conductivity of at least 1×10^{-9} Siemens.

8. A material as in claim 2 wherein the metallized surface is vapor deposited aluminum.

9. A material as in ~~claim 2~~ wherein the metallized surface is vapor deposited nickel.

10. A material as in claim 2 wherein the metallized surface is vapor deposited copper.

11. The material as in claim 2 wherein the low charge-retaining coating is a carbon loaded acrylic.

12. A low charge retaining film material for packaging that protects items from electrostatic discharge and corrosion said material comprising:

- a) a heat sealable static dissipative polymer;
- b) a metal foil attached to said heat sealable static dissipative polymer;
- c) a polymeric moisture barrier with a first metallized surface and a second nonmetallized surface said second nonmetallized surface of said polymeric moisture barrier being attached to the metal ~~foil~~ ^{foil, and}
- d) a low charge retaining coating attached to the first metallized surface of the polymeric moisture barrier.

Sub B3
13. A film material as in claim 11 further comprising a first tie layer located between the heat sealable static dissipative polymer and to the metal foil, and a second tie layer located between the metal foil and the polymeric moisture barrier layer.

14. A low charge retaining film material for packaging that protects items from electrostatic discharge and corrosion said material comprising:

- a) a heat sealable static dissipative polymer;
- b) a dimensionally stable dielectric polymer attached to the heat sealable static dissipative polymer;
- c) a metal foil attached to the dimensionally stable dielectric polymer;
- d) a polymeric moisture barrier with a first metallized surface and a second nonmetallized surface said second nonmetallized surface of said polymeric moisture barrier attached to the; and,
- e) a low charge retaining coating attached to the first metallized surface of the polymeric moisture barrier.

15. A low charge retaining film as in claim 14 when the heat sealable static dissipative polymer is attached to the dimensionally stable dielectric polymer by a first tie layer and wherein the dimensionally stable dielectric polymer is attached to the metal foil by a second tie layer and wherein the polymeric moisture barrier is attached to the metal foil by a third tie layer.

16. A film material as in ^{claim} ~~Claim~~ 14 wherein the first tie layer, the second tie layer, and the third tie layer are ^{to adhesive} ~~an adhesive~~.

17. A film material as in claim 16 wherein the metal foil is an aluminum foil.

18. A film material as in claim 17 has a thickness of between .0002 inches and .0005 inches.

19. A film material as in claim 15 wherein the dimensionally stable dielectric polymer is a biaxly oriented nylon.

20. A film material as in claim 19 wherein the polymeric moisture barrier is a metallized polyethylene.

21. A film material as in claim 20 wherein the metallized surface is aluminum between 170 and 400 Angstroms thick.

22. A film material as in claim 16 wherein the low charge retaining coating and the first metallized surface of the polymeric moisture barrier together have a surface conductivity of between 10^{-3} and 10^{-7} Siemens.

23. A low charge retaining film material for packaging that protects items from electrostatic discharge and corrosion said material comprising:

- a) heat sealable static dissipative polymer;
- b) a first tie layer attached to the heat sealable static dissipative polymer;
- c) a polymeric moisture barrier with a first metallized surface and a second nonmetallized surface said polymeric moisture barrier being attached to the first tie layer;
- d) a second tie layer attached to the polymeric moisture barrier;
- e) a metal foil attached to the second tie layer; and
- f) a low charge retaining coating attached to the metal foil.

24. A film material ~~as in claim 23~~ ^{as in claim 23} wherein the heat sealable static dissipative polymer is an antistat treated polyethylene.

25. A film material as in claim 24 wherein the metal foil is comprised of aluminum foil, and wherein the metallization of the first surface of the polymeric moisture barrier is aluminum between 170 and 400 Angstroms thick.

26. A film material as in claim 25 wherein the moisture penetration rate is less than .02 grams per 100 square inches per 24 hours.

27. A film material as in claim 1 wherein the moisture penetration rate is less than .02 grams per 100 square inches per 24 hours.

28. A film material as in claim 2 wherein the moisture penetration rate is less than .02 grams per 100 square inches per 24 hours.

29. A film material as in claim 14 wherein the moisture penetration rate of the material is less than .02 grams per 100 square inches per 24 hours.

Add
K2